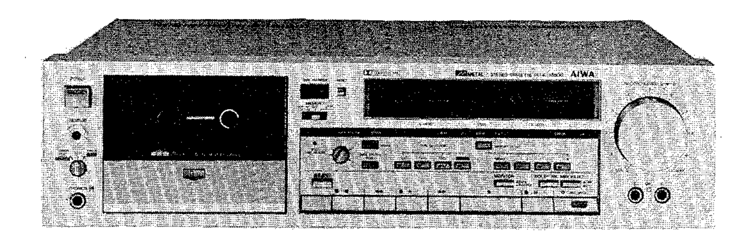
STEREO CASSETTE DECK

MODEL NO. AD-M800H,C,U,BU,G

AIWA®

[SERVICE MANUAL]

Code No. 04-800-000-69



DATE OF ISSUE 10/1980

SPECIFICATIONS

Semiconductors: 53 ICs, 1 FET, 143 transistors, 98 diodes & 1 PIN diode, 27 LED's

Power supply: H model AC 120V/220V/240V switchable 50/60 Hz; C,U,BU model AC 120V, 60 Hz; G model AC 120V/240V switchable 50/60 Hz

Power consumption: H,U,BU,G model 26W; C model 29W

Dimensions: 450(W) x 120(H) x 300(D) mm [17-3/4"(W) x 4-3/4"(H) x 11-1/4"(D)]

Weight: 7.2 kg (15.86 lbs.)

Track type: 4 tracks 2 channel

Tape speed: 4.8 cm/s (1-7/8 ips) ± 1.5%

Wow and flutter: Less than 0.04% (WRMS)

Automatic stop system: Full auto stop

Automatic shut-off action time: 3 ± 1 s.

Pinch roller pressure: 450 ± 40 g (4.41 ± 0.39N)

Take-up torque: 50 ± 10g-cm (490 ± 98 mN·m)

FF & rewind time: 90 s. (C-60)

Play back output: (TTA-161) 0.58 ± 0.05V (LINE)

Play back noise: Less than 1.1 mV (METAL, CrO_2, Fe-Cr DOLBY NR ON); Less than 2.2 mV (LH DOLBY NR OFF)

Rec./PB output: (TTA-119G) 0 VU ± 1.5 dB (LINE)

Rec./Pb distortion: Less than 1.0% (METAL); Less than 1.2% (CrO_2); Less than 1.0% (Fe-Cr); Less than 1.5% (LH)

Rec./Pb noise:
(Unweighted) Less than 2.2/1.2 mV (METAL, CrO_2, Fe-Cr DOLBY-NR OFF/ON); Less than 2.8/1.4 mV (LH DOLBY-NR OFF/ON)
(Weighted-A) Less than 1.1/0.5 mV (METAL, CrO_2, Fe-Cr DOLBY-NR OFF/ON); Less than 1.5/0.7 mV (LH DOLBY-NR OFF/ON)

Channel separation: (1 kHz, 0 VU) More than 35 dB

Cross talk: (1 kHz, 0 VU) More than 60 dB

Erasing ratio: (400 Hz, 0 VU, +10 dB) More than 60 dB

Bias frequency: 105 kHz

Frequency response:
METAL 20 ~ 20,000 Hz
CrO_2 20 ~ 18,000 Hz
Fe-Cr 20 ~ 19,000 Hz
LH 20 ~ 17,000 Hz

Motor: FG servo motor (capstan); DC motor (reel)

Inputs: MIC max. sensitivity 0.3 mV (200 Ω ~ 10 kΩ suitable)
LINE IN max. sensitivity 50 mV (Optimum load impedance more than 50 kΩ)

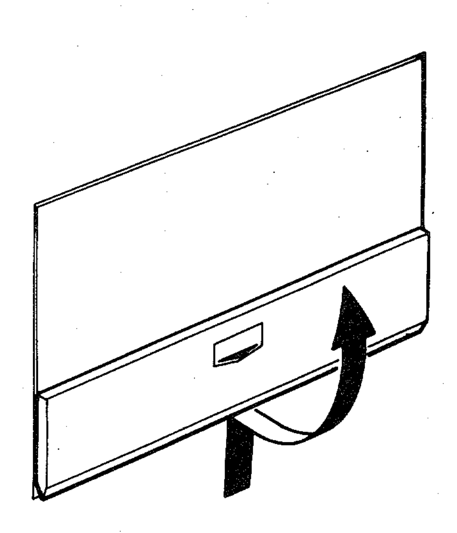
Outputs: LINE OUT Standard level 0.41 V (0 VU) (Optimum load impedance more than 50 kΩ)
PHONES 8Ω ~ 150Ω, 2 mW (0 VU)

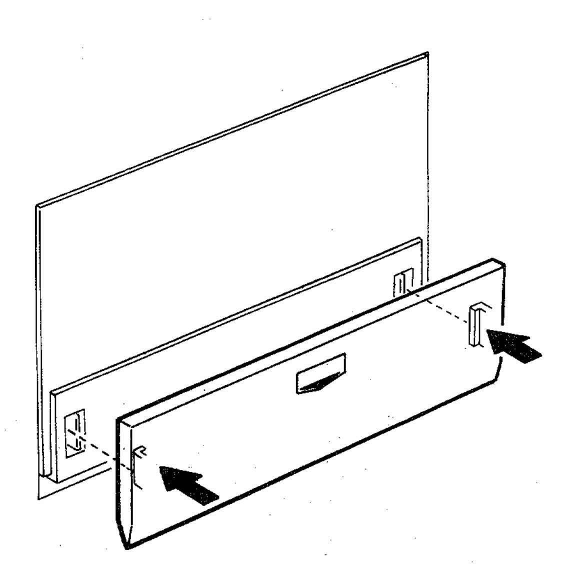
- Specifications and external appearance are subject to change without due to product improvement.
- Dolby Noise Reduction System is licensed from Dobly Laboratories.
- The name "Dolby" and DD symbol are trademarks of Dolby Laboratories.



Caution

- Remove the cassette compartment cover by first pushing upwards and then pulling out.
- When reattaching, align the compartment cover with the tabs and press as shown in the illustration.



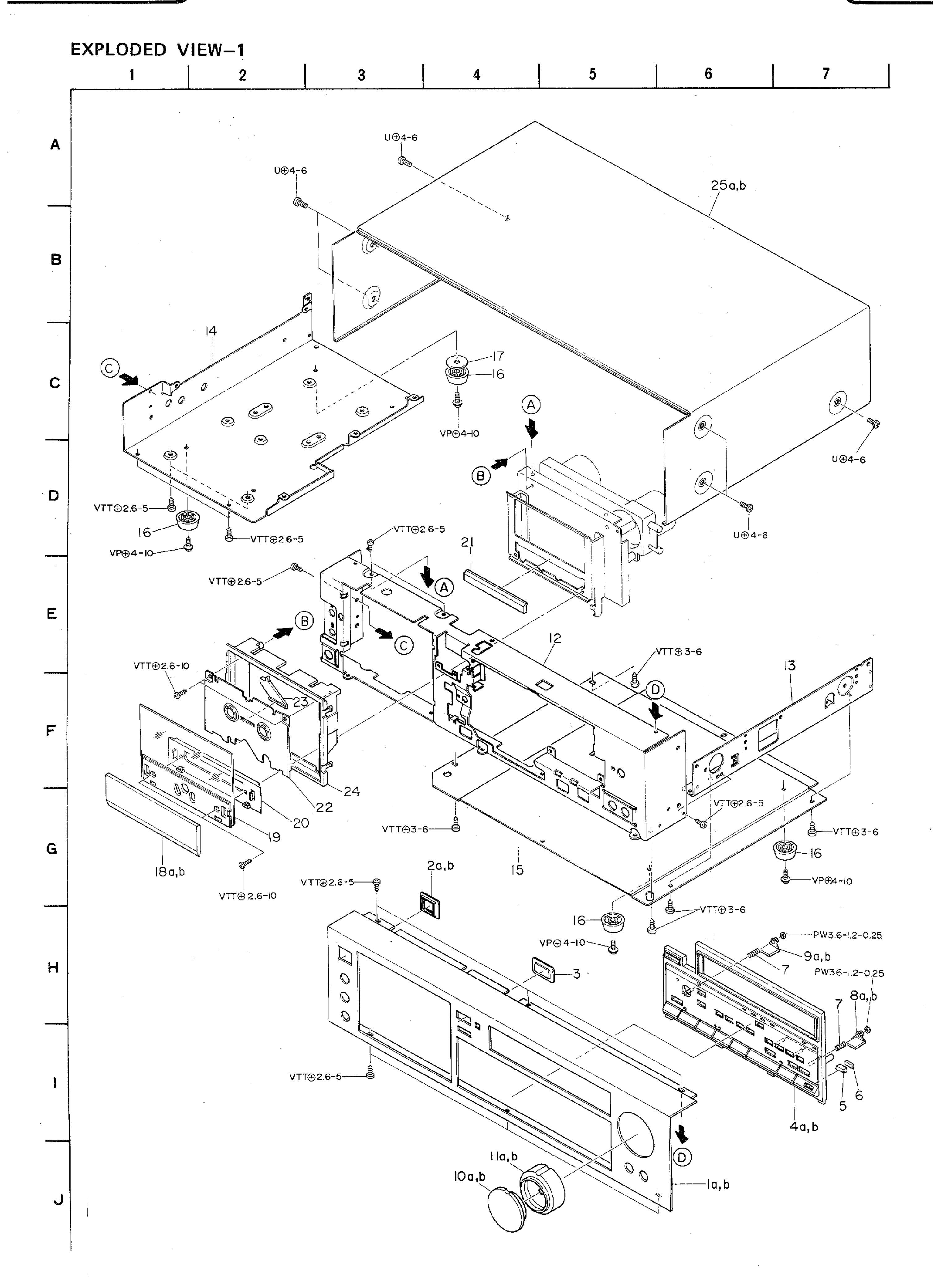


ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1a	82-155-858-01		Printed indiv., Packing (H,C,G model only)	*	1
1b	82-155-854-01		Printed indiv., Packing (U model only)	*	1
1c	82-155-863-01		Printed indiv., Packing (BU model only)	*	1
2a	82-162-852-11		Cushion L, Printed indiv. (H,C,BU,G model only)	AD-R500	1
2b	82-155-860-11		Cushion L, Printed indiv. (U model only)	*	1
3a	82-162-853-01		Cushion R, Printed indiv. (H,C,BU,G model only)	AD-R500	1
3b	82-155-861-01		Cushion R, Printed indiv. (U model only)	*	1
4	87-051-131-11		Poly-vinyl sack (for AC power cord)		1
5	87-056-607-01		Poly-vinyl sack (for case)		1
6a	82-155-859-01		Support cushion (H,C,U,G model only)	*	1
6b	82-155-865-01		Support cushion (BU model only)	*	1
7a	82-155-906-11		Instrucions booklet (H,C model only)	*	1
7b	82-155-910-11		Instructions bookelt (U,BU model only)	*	1
7c	82-155-909-01		Instructions booklet (G model only)	*	1
8	87-051-132-11		Poly-vinyl sack		1
9	87-051-135-11		Poly-vinyl sack		1
10	87-051-175-01		Poly-tube A (for instruction)		1
11	87-056-009-41		Distributors list (H,C,G model only)		1
12a	87-056-013-01		Guarantee card (C model only)		1
12b	87-056-045-01		Guarantee card (U,BU model only)		1
12c	87-056-032-01		Guarantee card (G model only)		1
13	87-056-057-01		Service station list (U,BU model only)		1
14	82-155-081-01		Handle (BU model only)	*	2
15	82-155-951-11		Screw handle ass'y	*	1
16	86-944-012-01		Connection cord, CW-129BSK		2
17	87-032-845-01		Siemens plug (H model only)		1
18	87-056-050-01		Safety instruction (U,BU model only)		1
19	86-159-001-01		Remote control, RC-82		1
20	87-047-063-01		Battery, SUM-3AE		3

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EXPLODED VIEW-1



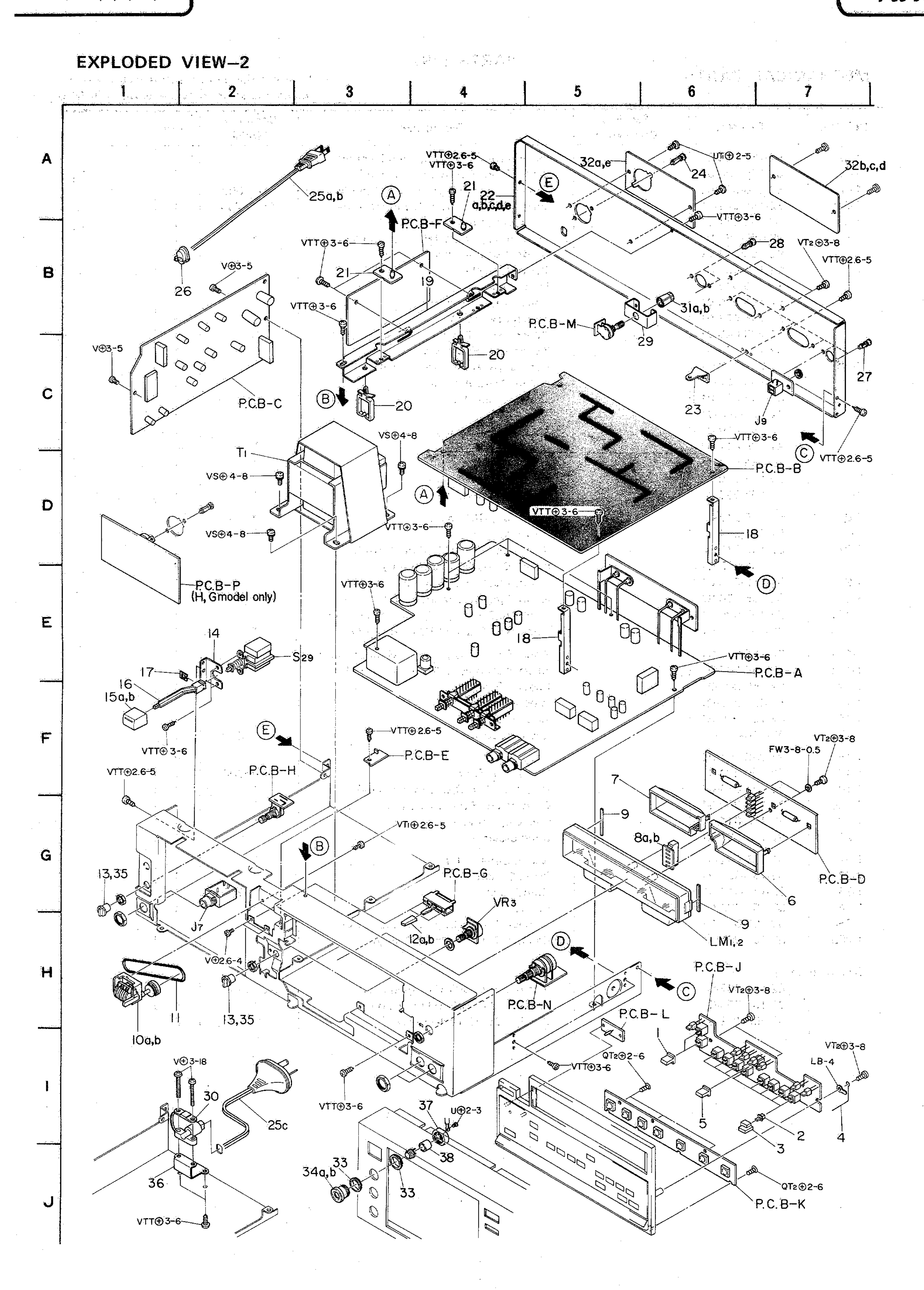
PARTS LIST

MECHANICAL PARTS

■ * mark in this part list shows exclusive part (which is used) for only Model No. AD-M800.

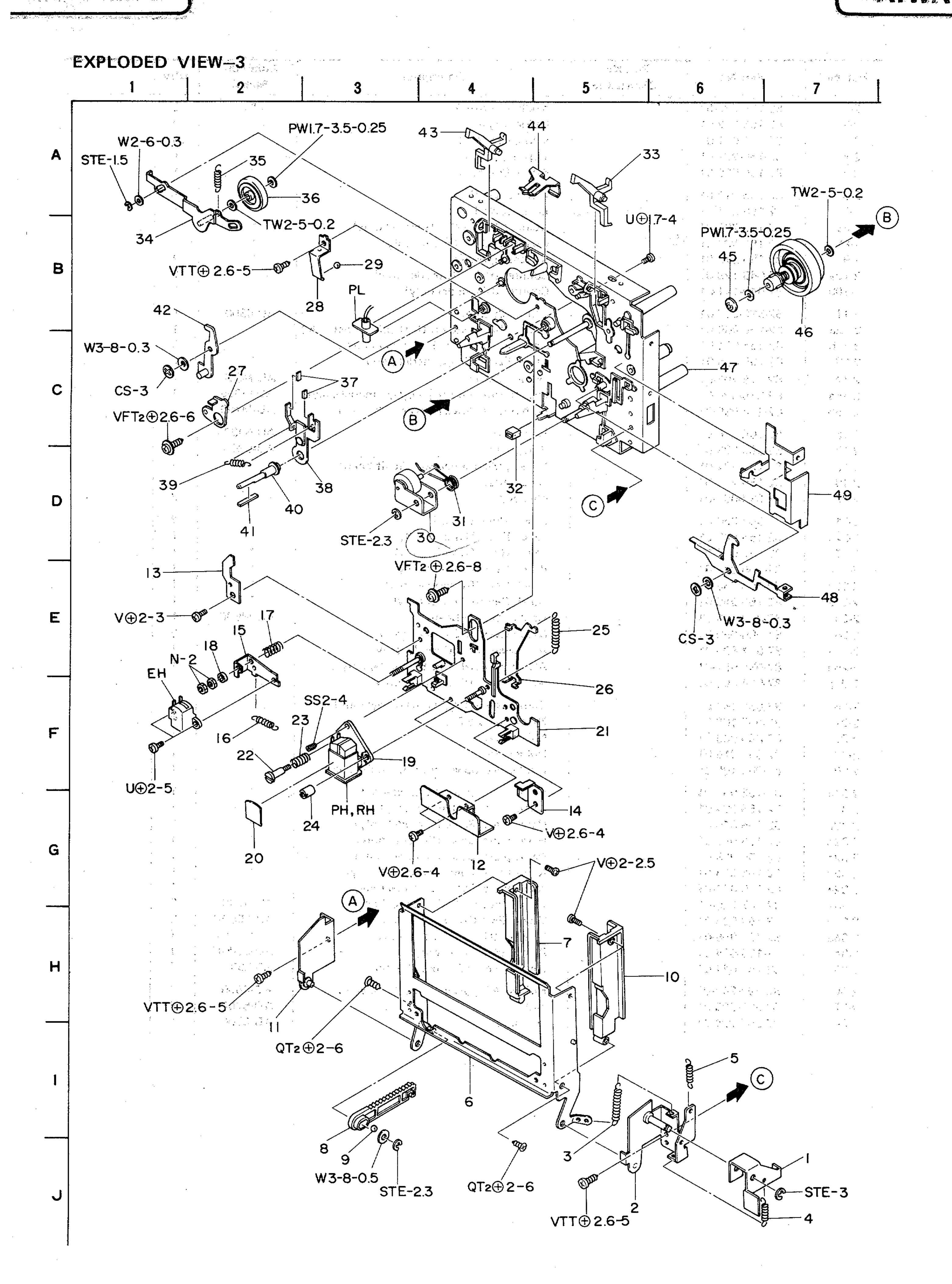
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1-1a	82-155-055-01		Panel, Front E (H,C,U,G model only)	*	1
1-1b	82-155-064-01		Panel, Front BU (BU model only)	*	1
1-2a	82-318-014-01		Guide, Power button (H,C,U,G model only)	AD-M600	1
1-2b	82-154-042-01		Guide, Power button (BU model only)	AM-M700	1
1-3	82-155-061-01		Window B, Counter	*	1
1-4a	09-047-187-01		Control panel ass'y (H,C,U,G model only)	*	1
	82-155-019-01		Guide, Control panel	*	1
	82-155-062-01		Control panel E	*	1
	82-155-063-01		Plate, LED	*	1
	82-155-030-01		Touch-key, Dummy	*	1
	82-155-024-01		Touch-key, PLAY	*	5
	82-155-025-01		Touch-key, STOP	*	1
	82-155-031-01		Touch-key, REC mute	*	1
1-4b	09-047-188-01		Control panel ass'y (BU model only)	*	1
	82-155-067-01		Guide, Control panel	*	1
	82-155-065-01		Control panel BU	*	1
	82-155-085-01		Plate, LED	*	1
	82-155-079-01		Touch-key, Dummy	*	1
	82-155-077-01		Touch-key, PLAY	*	5
	82-155-078-01		Touch-key, STOP	*	1
	82-155-080-01		Touch-key, REC mute	*	1
1-5	82-155-033-01		Knob, REC mute	*	1
1-6	82-155-218-01		S cushion, REC mute	*	1
1-7	82-155-214-01		C-spring, Eject	*	4
1-8a	82-155-017-01		Knob, Dolby (H,C,U,G model only)	*	3
1-8b	82-155-075-01		Knob, Dolby (BU model only)	*	3
1-9a	82-155-018-01		Knob, Eject (H,C,U,G model only)	*	1
1-9b	82-155-076-01		Knob, Eject (BU model only)	*	1
1-10a	82-155-005-01		Knob REC B ass'y (H,C,U,G model only)	*	1
1-10b	82-155-071-01		Knob REC B ass'y (BU model only)	*	1
1-11a	82-155-002-01		Knob REC A ass'y (H,C,U,G model only)	*	1
1-11b	82-155-069-01		Knob REC A ass'y (BU model only)	*	1
1-12	82-155-201-01		Chassis, Front	*	1
1-13	82-321-220-01		Amp. chassis B2		1
1-14	82-155-220-01		Amp. chassis A3	*	1
1-15	82-318-002-01		Cabinet, Bottom	AD-M600	1
1-16	87-085-161-01		Foot		4
1-17	82-154-223-01		G cushion, Foot	AD-M700	1
1-18a	82-155-013-01		Cassette lid (H,C,U,G model only)	*	1
1-18b	82-155-082-01		Cassette lid (BU model only)	*	1
1-19	82-155-014-01		Window, Cassette	*	1
1-20	82-155-039-01		Blind cassette	*	1
1-21	82-155-042-01		Name, Cassette lid	*	1
1-22	82-155-037-01		Plate, Cassette	*	1
1-23	82-154-015-01		Guide, Right	AD-M700	1
1-24	82-155-023-01		Blinder	*	1
1-25a	82-155-016-01		Cabinet, Steel (H,C,U,G model only)	*	1
1-25b	82-155-066-01		Cabinet, Steel (BU model only)	*	1
[U model only]					
	82-162-032-01		Side board L ass'y (U model only)	AD-R500	1
	82-155-058-01		Side board R ass'y (U model only)	*	1
	87-259-178-01		U + 4 – 25 (U model only)		6

EXPLODED VIEW–2



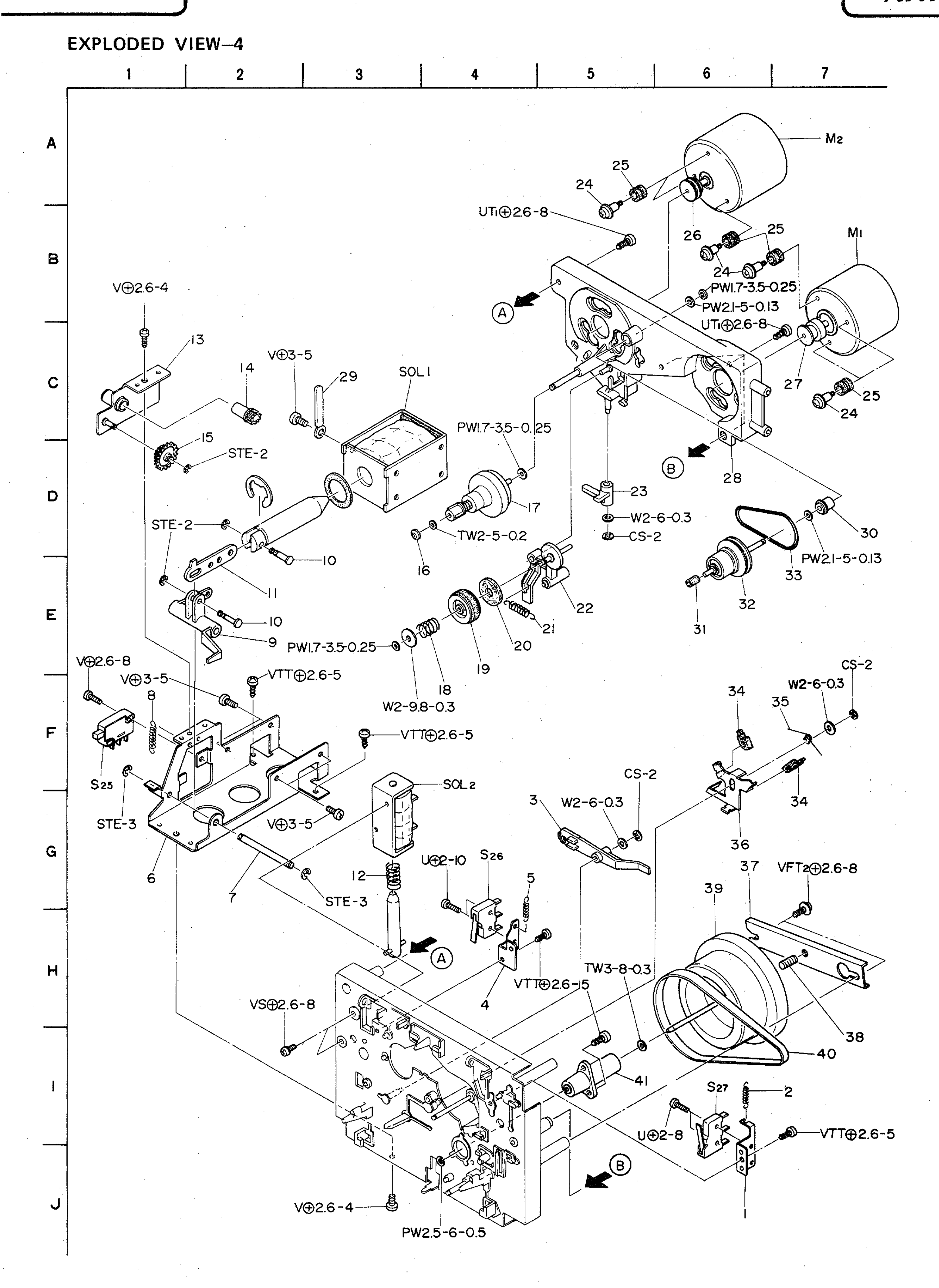
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
2-1	82-155-020-01		Knob, Control A	*	2
2-2	82-155-022-01		Guide, Light	*	8
2-3	82-155-021-01		Knob, Control B	*	8
2-4	82-155-221-01		T-spring, Earth	*	1
2-5	82-155-038-01		Knob, Control C	*	1
2-6	82-155-212-01		Lamp cover R	*	1
2-7	82-155-211-01		Lamp cover L	*	1
2-8a	82-155-205-01		Guide, LED (H,C,U,G model only)	*	1
2-8b	82-155-087-01		Guide, LED (BU model only)	*	1
2-9	82-155-219-01		S cushion, Meter	*	2
2-10a	87-040-128-01		Counter (H,C,U,G model only)		1
2-10b	87-040-141-01		Counter (BU model only)		1
2-11	82-385-253-01		Belt L, Counter	AD-6300	1
2-12a	82-155-009-01		Knob, Slide switch B (H,C,U,G model only)	*	1
2-12b	82-155-074-01		Knob, Slide switch B (BU model only)	*	3
2-13	82-155-008-01		Knob, PB (H,C,U,G model only)	*	2
2-14	82-318-205-01		Holder, Power	AD-M600	1
2-15a	82-318-025-01		Push-button, Power (H,C,U,G model only)	AD-M600	1
2-15b	82-154-030-01		Push-button, Power (BU model only)	AD-M700	1
2-16	82-304-210-01		Rod power	AD-6900	
2-17	82-385-383-01		Stopper rod	AD-6300	1
2-18	82-155-202-01		Holder, Microprocessor circuit board	*	2
2-19	82-155-217-01		Amp. chassis	*	1
2-20	87-038-052-01		Wire crip	*	2
2-21	87-064-056-01		Hinge, Circuit board		2
2-22a	82-155-043-01		Panel, Rear (H model only)	*	1
2-22b	82-155-044-01		Panel, Rear (C model only)	*	1
2-22c	82-155-047-01		Panel, Rear (U model only)	*	1
2-22d	82-155-068-01		Panel, Rear (BU model only)	*	1
2-22e	82-155-048-01		Panel, Rear (G model only)	*	1
2-23	82-318-203-01		Holder, Circuit board	AD-M600	1
2-24	87-085-090-01		Nylon rivet (H,G model only)		2
2-25a	87-034-826-01		AC power cord (H model only)		1
2-25b	87-034-951-01		AC power cord (C,U,BU model only)		1
2-25c	87-034-892-01		AC power cord (G model only)		1
2-26	87-085-165-01		Cord bushing (H,C,U,BU model only)		1
2-27	87-085-102-01		Nylon rivt 3.5-5.5		6
2-28	87-085-080-01		Nylon rivet		2
2-29	82-155-216-01		Holder, PB	*	1
2-30	87-085-166-01		Holder, AC power cord (G model only)		1
2-31a	82-155-057-01		Knob, Tone (H,C,U,G model only)	*	1
2-31b	82-155-084-01		Knob, Tone (BU model only)	*	1
2-32a	82-155-049-01		Name plate, Spec. (H model only)	*	1
2-32b	82-155-050-01		Name plate, Spec. (C model only)	*	1
2-32c	82-155-053-01		Name plate, Spec. (U model only)	*	1
2-32d	82-155-083-01		Name plate, Spec. (BU model only)	*	1
2-32e	82-155-054-01		Name plate, Spec. (G model only)	*	1
2-33a	82-307-026-01		Guide, Pipe (H,C,U,G, model only)	AD-6700	2
2-33b	82-153-035-01		Guide, Pipe (BU model only)	AD-6900II	2
2-34a	82-155-056-01		Pipe A2 (H,C,U,G model only)	*	1
2-34b	82-153-034-01		Pipe A (BU model only)	AD-6900II	1
2-35	82-157-042-01		Knob, Timer (BU model only)	SD-L50	2
2-36	82-397-244-01		Holder, AC power cord (G model only)	AD-6550	1
2-37	82-307-235-01		Nut	AD-6700	1
2-38	82-307-234-01		G cushion	AD-6700	1

EXPLODED VIEW-3



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
3-1	82-155-204-01		Lever, Eject	*	1
3-2	82-319-220-01		Holder C, Box R ass'y	AD-M600	1
3-3	82-319-230-01		E-spring, Cassette lid	AD-M600	1
3-4	82-155-215-01		E-spring, Eject lever	*	1
3-5	82-392-374-01		E-spring, Pause A	AD-6550	1
3-6	82-155-206-01		Cassette box ass'y	*	1
3-7	82-155-040-01		Holder L2, Cassette	*	1
3-8	82-541-240-01		Lever, Oil damper	TPR-950	1
3-9	82-073-005-01		Steel ball 2ϕ		1
3-10	82-155-041-01		Holder R2, Cassette	*	1
3-11	82-319-223-01		Holder C, Box L ass'y	AD-M600	1
3-12	82-397-291-01		Shield plate, Head	AD-6550	1
3-13	82-319-209-01		Guide, Idler lever	AD-M600	1
3-14	82-303-294-01		Holder, T-spring	AD-6900	1
3-15	82-303-374-01		Holder, EH	AD-6900	1
3-16	82-154-220-01		E-spring, EH	AD-M700	1
3-17	82-154-209-01		C-spring, EH	AD-M700	1
3-18	82-303-371-01		Collar, EH	AD-6900	1
3-19	82-155-615-01		Head combination	*	1
3-20	82-304-069-01		Label, Head	AD-6900	1
3-21	09-047-181-01		Out-sert actuating chassis ass'y	*	1
3-22	82-304-289-01		Screw, RPH	AD-6900	1
3-23	82-392-357-01		C-spring, Head	AD-6550	1
3-24	82-304-317-01		Nut, Azimuth	AD-6900	1
3-25	82-155-222-01		E-spring, Actuating	*	1
3-26	82-319-210-01		Slide plate, Actuating	AD-M600	1
3-27	82-303-288-01		Lever, Actuating lock	AD-6900	1
3-28	82-319-215-01		P-spring, Actuating A	AD-M600	1
3-29	82-215-341-01		Steel ball 3/32		1
3-30	82-319-270-01		Pinch roller ass'y	AD-M600	1
3-31	82-303-316-01		T-spring, Pinch lever	AD-M600	1
3-32	82-397-307-01		G cushion, Eject lever	AD-6550	1
3-33	82-303-349-01		Lever, CrO_2	AD-6900	1
3-34	82-303-342-01		Play idler lever ass'y	AD-6900	1
3-35	82-303-325-01		E-spring, Play idler	AD-6900	1
3-36	82-303-274-01		Play idler ass'y	AD-6900	1
3-37	82-303-382-01		Felt, Sub brake	AD-6900	2
3-38	82-319-259-01		Lever, Back tension ass'y	AD-M600	1
3-39	82-154-221-01		E-spring, Back tension	AD-M700	1
3-40	82-154-212-01		Shaft, Tension	AD-M700	1
3-41	82-303-372-01		Felt, EH	AD-6900	1
3-42	82-319-235-01		Lever, PAC ass'y	AD-M600	1
3-43	82-303-346-01		Lever, REC blocking	AD-6900	1
3-44	82-319-214-01		P-spring, Cassette	AD-M600	1
3-45	82-303-398-01		Take up reel platform cap	AD-6900	1
3-46	82-303-249-01		Take up reel platform ass'y	AD-6900	1
3-47	09-047-175-01		Main chassis ass'y	*	1
3-48	82-319-211-01		Lever, Play switch	AD-M600	1
3-49	82-155-210-01		Lock lever	*	1

EXPLODED VIEW–4



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
4-1	82-319-241-01		Holder, CrO_2	AD-M600	1
4-2	82-319-251-01		E-spring, CrO_2	AD-M600	1
4-3	82-303-286-01		Lever, Brake	AD-6900	1
4-4	82-303-350-01		Holder, REC blocking	AD-6900	1
4-5	82-319-234-01		E-spring, REC blocking	AD-M600	1
4-6	82-319-207-01		Holder, Plunger	AD-M600	1
4-7	82-304-244-01		Shaft, Play lever	AD-6900	1
4-8	82-304-249-01		E-spring, Actuating	AD-6900	1
4-9	82-304-232-01		Lever, Play	AD-6900	1
4-10	82-319-269-01		Shaft, Plunger	AD-M600	1
4-11	82-319-250-01		Slide plate, Play B	AD-M600	1
4-12	82-481-311-01		C-spring, Plunger	AF-3090	1
4-13	82-319-225-01		Holder, Oil damper ass'y	AD-M600	1
4-14	82-534-264-01		Gear, Oil damper		
4-15	82-319-239-01		Gear, Oil	AD-M600	1
4-16	82-303-398-01		Take up reel platform cap	AD-6900	1
4-17	82-154-216-01		Supply reel platform ass'y	AD-M700	1
4-18	82-303-322-01		C-spring, FR idler	AD-6900	1
4-19	82-303-271-01		Idler pulley FR ass'y	AD-6900	1
4-20	82-303-335-01		Felt 6.4-14	AD-6900	1
4-21	82-303-353-01		E-spring, FR lever	AD-6900	1
4-22	82-303-277-01		FR lever ass'y	AD-6900	1
4-23	82-303-292-01		Lever, Eject	AD-6900	1
4-24	87-081-483-01		Motor screw M2.6		6
4-25	82-439-319-01		Rubber cushion B	TPR-300	6
4-26	82-319-247-01		Motor pulley, FR	AD-M600	1
4-27	82-319-248-01		Motor pulley, Flywheel A	AD-M600	1
4-28	09-047-152-01		Sub chassis ass'y	*	1
4-29	87-064-080-01		Wire binder		1
4-30	82-439-410-01		Shaft bearing 2ϕ	TPR-300	1
4-31	82-303-309-01		Drive rubber	AD-6900	1
4-32	82-303-330-01		Slip pulley ass'y	AD-6900	1
4-33	82-303-385-01		Rubber belt FR B	AD-6900	1
4-34	82-439-426-01		Brake shoe A	TPR-300	2
4-35	82-303-318-01		T-spring, Brake	AD-6900	1
4-36	82-303-297-01		Slide plate, Brake	AD-6900	1
4-37	82-319-238-01		Plate, Flywheel	AD-M600	1
4-38	82-331-107-01		Thrust screw		1
4-39	82-154-218-01		Flywheel ass'y	AD-M700	1
4-40	82-319-227-01		Rubber belt, Flywheel	AD-M600	1
4-41	82-392-256-01		Shaft bearing ass'y	AD-6550	1

801025 (1)-Z

AIWA CO., LTD.

Printed in Japan

ELECTRICAL MAIN PARTS LIST

Symbol No.	Part No.	Description
≪MAIN CIRCUIT BOARD SECTION≫		
PCB-A	82-155-602-11	Maincircuit board (H,C,G model)
PCB-A	82-155-677-01	Main circuit board (U,BU model)
IC101,102 303,304	87-027-557-01	IC, CX174
IC151	87-027-382-01	IC, LA4170
IC301,354 356,358	87-027-371-01	IC, 4558DA
IC351	87-027-611-01	IC, TC4051
IC352,353 355,359	87-027-677-01	IC, LF353N •
IC357	87-027-678-01	IC, LM13600N
IC701	87-027-567-01	IC, HD74LS26P
Q101,102	89-107-505-01	Transistor, 2SA750(E)
Q103,104,105 106,107,108 151,152,301 302,305,306 307,308,309 310,311,312 315,316,505 508,702,703 704,705,706 707,708,709 710,713,715 801,802,803	89-309-456-01	Transistor, 2SC945L(P)
Q109,110,111 112,113,114 303,304,313 314	89-320-011-01	Transistor, 2SC2001(K)
Q401	89-314-005-01	Transistor, 2SC1400(E)
Q501	89-205-964-01	Transistor, 2SB596(Y)
Q502,601	89-408-804-01	Transistor, 2SD880(Y)
Q503	89-318-156-01	Transistor, 2SC1815(BL)
Q504	89-110-155-01	Transistor, 2SA1015(GR)
Q506,507,711 712,714	89-107-336-01	Transistor, 2SA733(P)
Q602,603	89-407-624-01	Transistor, 2SD762(P)
Q701	89-206-051-01	Transistor, 2SB605(K)
D101,102,301 302,503,504 505,506,507 702,703,704 803,804,805 806,808	87-027-097-01	Diode, 1S1555
D303,304,305 306	82-155-640-01	Varactor diode, KV-1236
D501,601	87-027-163-01	Encapsulated diode 1B4B1
D502	87-027-680-01	Zener diode, HZ11C1L
D602	87-027-479-01	Zener diode, HZ27-2
D701	87-027-471-01	Zener diode, HZ-161
D801	87-027-365-01	Diode, S5277B
D802,807,809	87-027-286-01	Zener diode, HZ-5C1
D401	87-027-436-01	Zener diode, HZ11B1
L101,102	82-938-640-01	Bias trap coil, 10mH
L301,302	82-304-701-01	Bias trap coil, 22mH
CP301,302	82-155-639-01	Photo couppler
CP701	82-328-602-01	Bias OSC unit
J1,2	82-155-642-01	Jack, 6.3φ (MIC, L, R)
J3,4,5,6	82-309-639-01	Pin jack Ass'y (LINE IN/REC, LINE OUT/PLAY)
LPF301,302	87-030-060-01	Low pass filter, 100kHz
S1,2,3	82-155-645-01	Push-switch (MPX FILTER, DOLBY-NR, MONITOR)
SFR101,102 103,104	87-021-615-01	Semi-fixed resistor, 47kΩ-B
PIN-3,4	87-032-903-01	Pin, 3P
PIN-2	87-032-904-01	Pin, 4P
PIN-5	87-032-906-01	Pin, 6P
		< Resistors >
⚠ R501,502	87-029-070-01	2.2Ω ¼W Fuse resistor (H,C,U model)
⚠ R602	87-029-067-01	4.7Ω ¼W Fuse resistor
⚠ R514,515,606	87-029-017-01	10Ω ¼W Fuse resistor
⚠ R601	87-029-016-01	22Ω ½W Fuse resistor
R111,112	87-025-294-01	3.6kΩ ¼W ±1% Metal film resistor
R155,156,353 354	87-025-281-01	6.2kΩ ¼W ±1% Metal film resistor
		< Capacitors >
C303,304	87-015-242-01	2.2μF 50V Electrolytic LL
C151,152,307 308	87-015-453-01	2.2μF 25V Electrolytic BP
C133, 134,319 320,359,360	87-015-464-01	4.7μF 16V Electrolytic BP
C355,356,357 358,369,370	87-015-668-01	22μF 16V Electrolytic BP
C113,114,343 344	87-015-141-01	10μF 16V Electrolytic BP
C119,120	87-014-073-01	4700pF ±2% PP
C135,136,323 324	87-014-116-01	0.0068μF ±2% PP
C137,138,325 326	87-014-118-01	0.015μF ±2% PP
C365,366	87-014-122-01	0.018μF ±2% PP
C109,110	87-014-119-01	0.027μF ±2% PP
C139,140,327 328	87-014-120-01	0.056μF ±2% PP
≪MICROPROCESSER CIRCUIT BOARD SECTION≫		
PCB-B	82-155-623-21	Microprocesser circuit board (H,C,G model)
PCB-B	82-155-622-01	Microprccesser circuit board (U,BU model)
IC1	82-155-616-01	IC, μCOM43-546C155
IC2,9~13 22	87-027-371-01	IC, 4558DA
IC3	87-027-567-01	IC, HD74LS26P
IC4	87-027-657-01	IC, TC4028BP
IC5,6,7	87-027-597-01	IC, HD74LS75P
IC8,17	87-027-565-01	IC, CMOS TC4081BP
IC14	87-027-630-01	IC, DAC0806LCN
IC15,18,19	87-027-656-01	IC, TC4066BP
IC16,20,21	87-027-598-01	IC, TC4042BP
IC23	87-027-672-01	IC, TMM142P
IC24	87-027-673-01	IC, T3541A
IC25	87-027-729-01	IC, MB4049B
Q1	89-407-624-01	Transistor, 2SD762(P)
Q2	89-108-854-01	Transistor, 2SA885(R)
Q3,4~10,15 23,32,35,36 43	89-107-335-01	Transistor, 2SA733(K)
Q5,11,13,14 16~22,24 25,26,27 37~42	89-309-456-01	Transistor, 2SC945L(P)
Q12,31	89-110-155-01	Transistor, 2SA1015(GR)
Q28	89-406-555-01	Transistor, 2SD655(E)
Q29	89-500-305-01	FET, 2SK30A
Q30	89-318-155-01	Transistor, 2SC1815(GR)
Q33,34	89-318-154-01	Transistor, 2SC1815(Y)
D1	88-052-188-01	Diode, 1S188(FM)
D2,11~14 16~22 25~36	87-027-097-01	Diode, 1S1555
D3	87-027-649-01	Zener diode, HZ-7A2
D4~8	87-027-365-01	Diode, S5277B
D9	87-027-675-01	Zener diode, HZ33-3L
D10	87-027-390-01	Zener diode, HZ24-3L
D15	87-027-676-01	Zener diode, HZ12B3L
D23	87-027-301-01	Zener diode, HZ3A1
D24	87-027-584-01	Zener diode, HZ9LC1
X1	87-008-186-01	Ceramic, CSB400R1
SFR1	87-021-610-01	Semi-fixed resistor, 2.2kΩ-B
SFR2,3	87-021-615-01	Semi-fixed resistor, 47kΩ-B
SFR4	87-021-304-01	Semi-fixed resistor, 5kΩ-B
PIN-10	87-032-903-01	Pin, 3P
PIN-6	87-032-904-01	Pin, 4P
PIN-7	87-032-905-01	Pin, 5P
PIN-9,11,14	87-032-906-01	Pin, 6P
PIN-8	87-032-907-01	Pin, 7P
PIN-12	87-032-909-01	Pin, 9P
PIN-13	87-032-912-01	Pin, 12P
		< Resistors >
⚠ R193,194	87-029-017-01	10Ω ¼W Fuse resistor
⚠ R198,199	87-029-017-01	10Ω ¼W Fuse resistor (C,G model)
R45,46,47, 48,96	82-155-624-01	220Ωx4 100kΩ ¼W Resistor block
R131	87-025-276-01	1kΩ ¼W ±1% Metal film resistor
R139	87-025-278-01	3kΩ ¼W ±1% Metal film resistor
R106	87-025-292-01	6.8kΩ ¼W ±1% Metal film resistor
R90,94,95 118	87-025-282-01	10kΩ ¼W ±1% Metal film resistor
R105,135,140	87-025-283-01	12kΩ ¼W ±1% Metal film resistor
R130	87-025-284-01	18kΩ ¼W ±1% Metal film resistor
R117,119,120, 121	87-025-285-01	20kΩ ¼W ±1% Metal film resistor
R133	87-025-289-01	56kΩ ¼W ±1% Metal film resistor
≪LOGIC CIRCUIT BOARD SECTION≫		
PCB-C	82-155-609-21	Logic circuit board (H,C,G model)
PCB-C	82-155-683-01	Logic circuit board (U,BU model)
IC1	87-027-477-01	IC, TC-9121P
IC2	87-027-595-01	IC, TC-4023BP
IC3	87-027-435-01	IC, MC-4069
Q1~3,5 13~15 20~24	89-309-455-61	Transistor, 2SC945L(PQ)
Q4,6	89-107-335-61	Transistor, 2SA733(K,P)
Q7,16,25	89-318-464-51	Transistor, 2SC1846(R,S)
Q17	89-318-464-51	Transistor, 2SC1846(RS) (H,U,BU model)
Q17	89-408-804-01	Transistor, 2SD880(Y) (C,G model)
Q8,9	89-106-834-51	Transistor, 2SA683 (RS)
Q10,11,19	89-313-834-01	Transistor, 2SC1383(S)
Q12	89-407-624-01	Transistor, 2SD762(P)
Q18	89-108-854-51	Transistor, 2SA885(RS)
D1~18	87-027-097-01	Diode, 1S1555
D19~22	87-027-365-01	Diode, S5277B
D23	87-027-475-01	Zener diode, HZ-6B1
SFR1	87-021-480-01	Semi-fixed resistor, 50kΩ-B
PIN-15	82-481-647-01	Pin, 4P
		< Resistors >
⚠ R89,90	87-029-083-01	10Ω ½W Fuse resistor (C,G model)
⚠ R23	87-029-094-01	15Ω ¼W Fuse resistor
≪METER CIRCUIT BOARD SECTION≫		
PCB-D	82-155-603-11	Meter circuit board
IC901	87-027-351-01	IC, LB-1416
D103~106	88-051-060-01	Diode, 1N60
D901,902	82-561-614-01	LED, TLR-205
D903,904,905	87-029-679-01	LED, TLR-208
PL1,2	82-155-663-01	Meter lamp, 8V 100mA
SFR105,106	87-021-564-01	Semi-fixed resistor, 1kΩ-B
PIN-21	87-032-914-01	Pin, 4P
		< Capacitors >
C155,156	87-015-453-01	2.2μF 25V Electrolytic BP
C157,158	87-015-464-01	4.7μF 16V Electrolytic BP
≪DME CIRCUIT BOARD SECTION≫		
PCB-E	82-155-612-01	DME circuit board (H,C,G model)
PCB-E	82-155-686-01	DME circuit board (U,BU model)
IC1	82-397-642-11	IC, DM-101A
≪RX CIRCUIT BOARD SECTION≫		
PCB-F	82-155-682-01	RX circuit board
IC1	87-027-629-01	IC, 4558DX
IC2	87-027-435-01	IC, MC-4069
IC3	87-027-704-01	IC, M50111P
IC4	87-027-564-01	IC, CMOS TC4011BP
IC5	87-027-657-01	IC, TC4028BP
Q1	89-318-445-01	Transistor, 2SC1844(E)
Q2,4~9	89-309-455-61	Transistor, 2SC945L(PQ)
Q3	89-107-335-01	Transistor, 2SA733(K)
D1~4	87-027-097-01	Diode, 1S1555
D5	87-027-366-01	PIN diode, M133HLF AW
X1	87-008-191-01	Ceramic, SFB-455R
PIN-22	87-032-903-01	Pin, 3P
PIN-20	87-032-908-01	Pin, 8P
	87-049-001-01	Pin, 3P

Symbol No.	Part No.	Description
		< Resistor >
R1	87-025-286-01	22kΩ ¼W ±1% Metal film resistor
≪SWITCH CIRCUIT BOARD-1 SECTION≫		
PCB-G	82-155-611-01	Switch circuit board-1 (H,C,G model)
PCB-G	82-155-685-01	Switch circuit board-1 (U,BU model)
S15	82-318-615-01	Lever switch (MEMORY)
≪SWITCH CIRCUIT BOARD-2 SECTION≫		
PCB-H	82-155-610-01	Switch circuit board-2 (H,C,G model)
PCB-H	82-155-684-01	Switch circuit board-2 (U,BU model)
S24	87-031-502-01	Rotary switch (TIMER/REPEAT)
PIN17,18	87-032-903-01	PIN, 3P
PIN16	87-032-904-01	PIN, 4P
PIN19	87-032-908-01	PIN, 8P
≪TAPE/CHANNEL SWITCH CIRCUIT BOARD SECTION≫		
PCB-J	82-155-618-11	Tape/channel switch circuit board
D1,10,11,12 13,15	82-155-661-01	LED, TLG-205S
D14	82-561-614-01	LED, TLR-205
S4~11, D2~9	87-031-558-01	Push-switch w/LED (MEMORY 1~4, TAPE SELECTOR)
S12~14	87-031-557-01	Push-switch (COMPU BRAIN, MEMORY IN, START)
≪LOGIC CIRCUIT BOARD SECTION≫		
PCB-K	82-155-620-11	Logic circuit board
D1	87-027-636-01	LED, TLR-226
D2	87-027-637-01	LED, TLG226
D3	87-027-638-01	LED, TLY226
S17~23	87-031-556-01	Push-switch (Logic control switch)
≪BIAS LED CIRCUIT BOARD SECTION≫		
PCB-L	82-155-619-11	Bias LED circuit board
D1	87-027-638-01	LED, TLY226
≪VOLUME CIRCUIT BOARD-1 SECTION≫		
PCB-M	82-155-605-11	Volume circuit board-1 (H,C,G model)
PCB-M	82-155-679-01	Volume circuit board-1 (U,BU model)
VR2	82-155-643-01	Volume, 10kΩ-A (OUTPUT LEVEL)
≪VOLUME CIRCUIT BOARD-2 SECTION≫		
PCB-N	82-155-604-11	Volume circuit board-2 (H,C,G model)
PCB-N	82-155-678-01	Volume circuit board-2 (U,BU model)
VR1	82-155-644-01	Volume, 20kΩ-A (RECORD LEVEL)
≪VOLTAGE SELECTOR CIRCUIT BOARD SECTION≫ = H,G model only		
⚠ PCB-P	82-154-608-11	Voltage selector circuit board

Symbol No.	Part No.	Description
⚠ S30	87-031-551-01	Rotary switch (VOLTAGE SELECTOR) (H model)
⚠ S30	87-031-542-01	Rotary switch (VOLTAGE SELECTOR) (G model)
⚠ F1	87-035-219-01	Fuse, T500mA (G model)
	87-098-013-01	Fuse label, T500mA (G model)
⚠	87-033-147-01	Fuse clamp (G model)
		< Capacitor >
⚠ C1	87-019-104-01	0.01μF Line capacitor
≪MISCELLANEOUS≫		
⚠ T1	82-155-631-01	Power transformer (H,G model)
⚠ T1	82-155-630-01	Power transformer (C model)
⚠ T1	82-155-628-01	Power transformer (U,BU model)
RH,PH	82-155-615-01	RH,PH combination head
EH	87-046-173-01	Erase head
M1	82-154-621-01	Motor, DC-FG
M2	82-319-617-01	Motor, DC-EG
SOL1	82-319-615-11	Solenoid (FWD)
SOL2	82-304-640-11	Solenoid (FR)
PL	82-155-664-01	Pilot lamp, 8V 80mA
⚠ CP1	87-019-098-01	Compound capacitor 0.033μF+120Ω (C model)
⚠ CP1	87-028-036-01	Compound capacitor 0.033μF+120Ω (U.BU model)
LM1,2	82-155-638-11	Level meter
J7	82-155-641-01	Jack, 6.3ϕ (PHONES)
J9	87-049-006-01	Jack, 2.5ϕ (PLAYER SYNC)
VR3	82-155-665-01	Volume, 10kΩ-B (BIAS FINE ADJUST)
S26,27	87-031-610-01	Micro switch (Erase prevention, CrO_2 detection)
S25	82-319-613-01	Micro switch (Cassette detection)
⚠ S29	87-031-467-01	Push-switch (POWER) (H,G model)
⚠ S29	87-031-520-01	Push-switch (POWER) (C,U model)
⚠	87-033-140-01	Solderless terminal (C,U.BU model)
⚠	87-034-826-01	AC cord (H model)
⚠	87-034-951-01	AC cord (C,U.BU model)
⚠	87-034-892-01	AC cord (G model)
⚠	87-085-165-01	Cord bushing (H,C,U.BU model)
⚠	87-085-166-01	Cord bushing (G model)
CON-18	82-155-635-01	Connector ass'y, 3P
CON-17	82-155-636-01	Connector ass'y, 3P
CON-4	82-155-648-01	Connector ass'y, 3P
CON-10	82-155-653-01	Connector ass'y, 3P
CON-22	82-155-687-01	Connector ass'y, 3P
CON-16	82-155-634-01	Connector ass'y, 4P
CON-15	82-155-649-11	Connector ass'y, 4P
CON-6	82-155-659-01	Connector ass'y, 4P
CON-21	82-155-674-01	Connector ass'y, 4P
CON-2	82-155-672-01	Connector ass'y, 4P
CON-7	82-155-658-11	Connector ass'y, 5P
CON-5	82-155-647-01	Connector ass'y, 6P
CON-9	82-155-652-01	Connector ass'y, 6P
CON-14	82-155-656-01	Connector ass'y, 6P
CON-11	82-155-657-01	Connector ass'y, 6P
CON-8	82-155-655-01	Connector ass'y, 7P
CON-19	82-155-688-01	Connector ass'y, 8P
CON-20	82-155-689-01	Connector ass'y, 8P

AD-M800H,C,U,BU,G

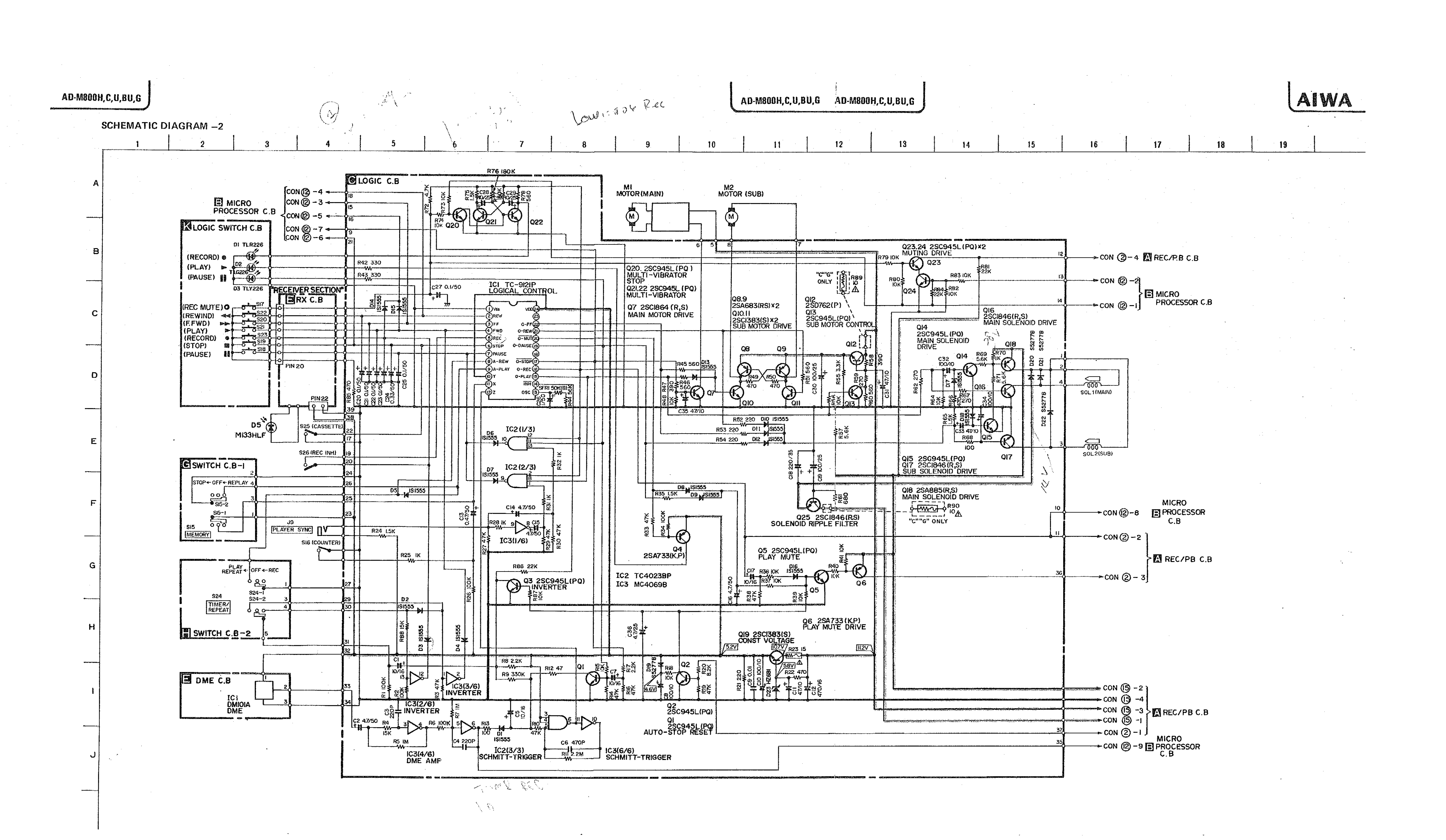
Symbol No.	Part No.	Description
CON-12	82-155-654-01	Connector ass'y, 9P
CON-13	82-155-651-01	Connector ass'y, 12P

⚠ This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

MEMO

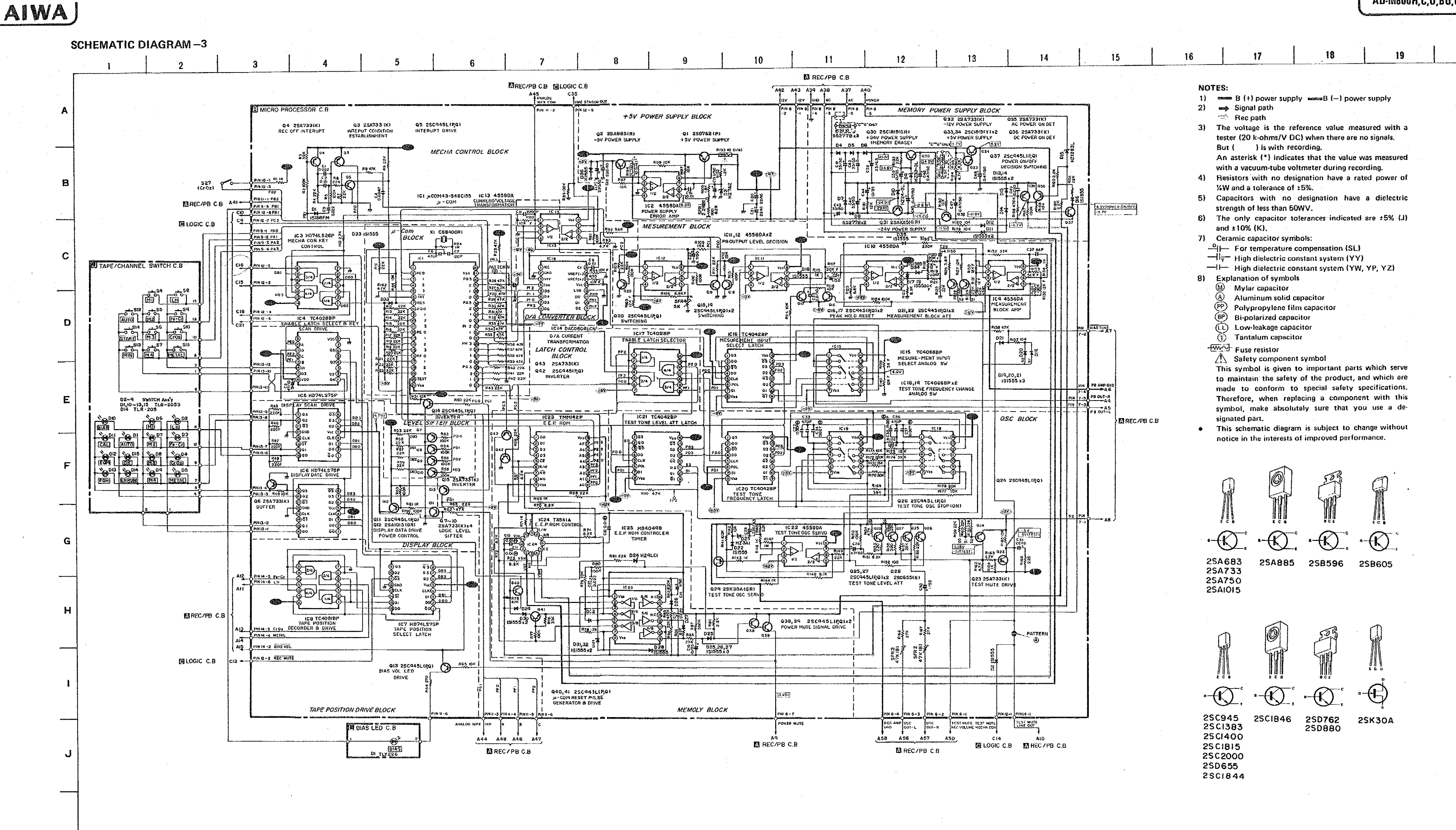
SCHEMATIC DIAGRAM –1

S1-1~4	MPX FILTER
S2-1~4	DOLBY-NR
S3-1~4	MONITOR
S4~7	MEMO
S8-11	TAPE SELECTOR
S12	COMPU-BRAIN RESET
S13	MEMORY IN
S14	COMPU-BRAIN START
S15-1,2	MEMORY
S16	TAPE COUNTER
S17	REC MUTE
S18	PAUSE
S19	STOP
S20	F,FWD
S21	PLAY
S22	REWIND
S23	RECORD
S24-1,2	TIMER / REPEAT
S25	CASSETTE
S26	REC INH
S27	CrO2 DET.
S28	INPUT SELECTOR (LINE)
S29	POWER
S30	VOLTAGE SELECTOR 240V ("H""G" ONLY)



AD-M800H,C,U,BU,G
SCHEMATIC DIAGRAM –2
AD-M800H,C,U,BU,G
AD-M800H,C,U,BU,G
AIWA
LOGIC C.B
B MICRO PROCESSOR C.B
K LOGIC SWITCH C.B
RECEIVER SECTION
E RX C.B
G SWITCH C.B-1
H SWITCH C.B-2
E DME C.B
M1 MOTOR (MAIN)
M2 MOTOR (SUB)
IC1 TC-9121P LOGICAL CONTROL
Q20 2SC945L(PQ) MULTI-VIBRATOR STOP
Q21,22 2SC945L(PQ) MULTI-VIBRATOR
Q7 2SC1864(R,S) MAIN MOTOR DRIVE
Q8,9 2SA683(RS)×2
Q10,11 2SC1383(S)×2 SUB MOTOR DRIVE
Q12 2SD762(P)
Q13 2SC945L(PQ) SUB MOTOR CONTROL
Q23,24 2SC945L(PQ)×2 MUTING DRIVE
Q14 2SC945L(PQ) MAIN SOLENOID DRIVE
Q16 2SC1846(R,S) MAIN SOLENOID DRIVE
Q15 2SC945L(PQ)
Q17 2SC1846(R,S) SUB SOLENOID DRIVE
Q18 2SA885(R,S) MAIN SOLENOID DRIVE
Q25 2SC1846(RS) SOLENOID RIPPLE FILTER
Q4 2SA733(K,P)
Q5 2SC945L(PQ) PLAY MUTE
Q6 2SA733(K,P) PLAY MUTE DRIVE
Q19 2SC1383(S) CONST VOLTAGE
Q3 2SC945L(PQ) INVERTER
IC2 TC4023BP
IC3 MC4069B
Q2 2SC945L(PQ)
Q1 2SC945L(PQ) AUTO-STOP RESET
IC3(4/6) DME AMP
IC3(2/6) INVERTER
IC3(3/6) INVERTER
IC2(3/3) SCHMITT-TRIGGER
IC3(6/6) SCHMITT-TRIGGER
IC1 DM101A DME
D5 MI33HLF
A REC/P.B C.B
B MICRO PROCESSOR C.B
A REC/PB C.B
SOL.1(MAIN)
SOL.2(SUB)

SCHEMATIC DIAGRAM—3

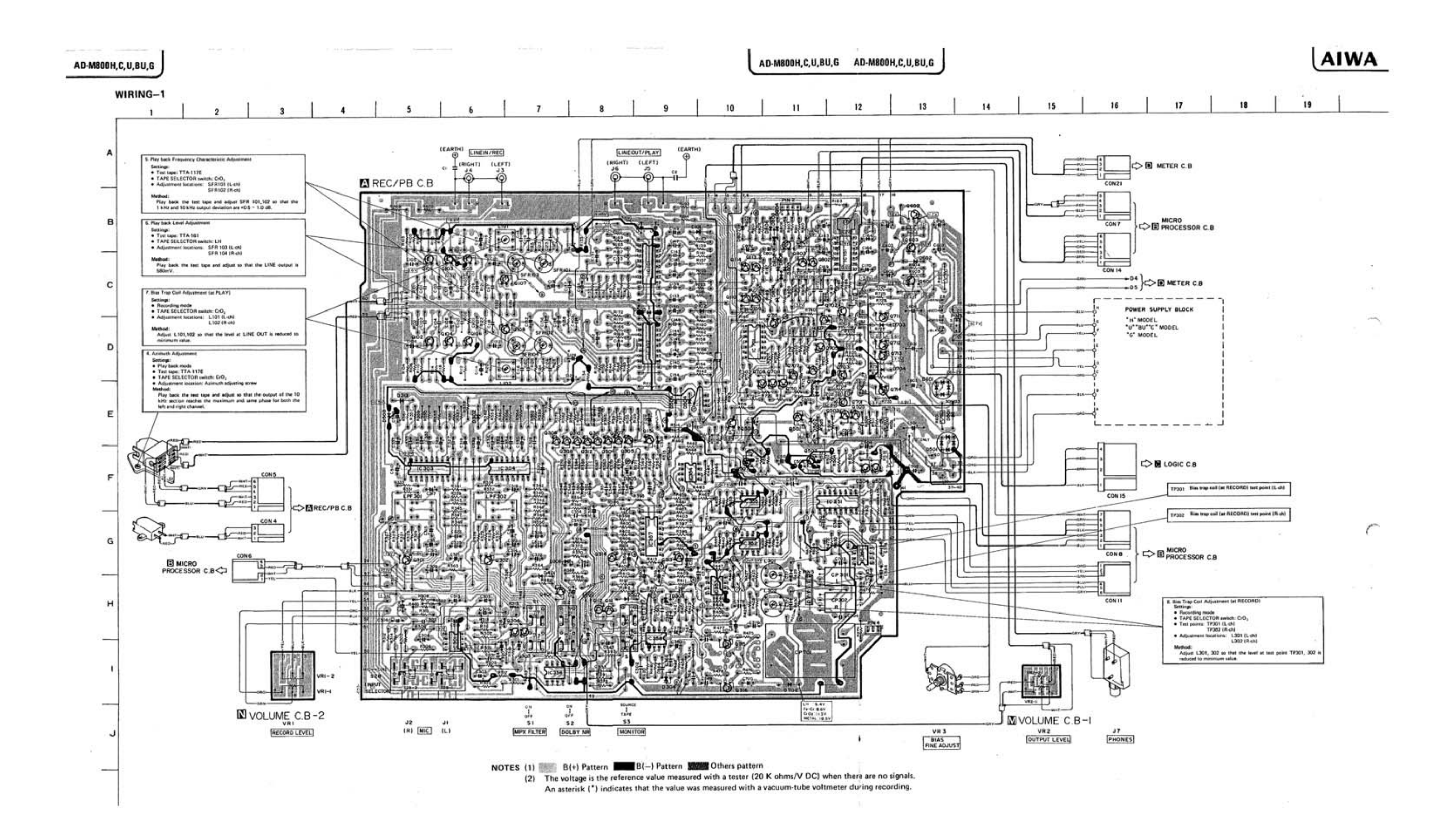


NOTES:

1) B (+) power supply B (—) power supply
2) Signal path
Rec path
3) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals.
But ( ) is with recording.
An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.
4) Resistors with no designation have a rated power of ¼W and a tolerance of ±5%.
5) Capacitors with no designation have a dielectric strength of less than 50WV.
6) The only capacitor tolerances indicated are ±5% (J) and ±10% (K).
7) Ceramic capacitor symbols:
For temperature compensation (SL)
High dielectric constant system (YY)
High dielectric constant system (YW, YP, YZ)
8) Explanation of symbols
(M) Mylar capacitor
(A) Aluminum solid capacitor
(PP) Polypropylene film capacitor
(BP) Bi-polarized capacitor
(LL) Low-leakage capacitor
(T) Tantalum capacitor
Fuse resistor
⚠ Safety component symbol
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

- This schematic diagram is subject to change without notice in the interests of improved performance.

WIRING–1



NOTES (1) B(+) Pattern B(–) Pattern Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.

WIRING–2

1. Tape Speed Adjustment
Settings:
- Test tape: TTA-111S
- Adjustment location: SFR of M1

Method:
Play back the test tape and adjust so that the frequency is 3,000 Hz, both at the start and the end of tape winding.

9. Level Meter Adjustment
Settings:
- Adjustment locations: SFR105 (L-ch) SFR106 (R-ch)
- MONITOR switch: SOURCE

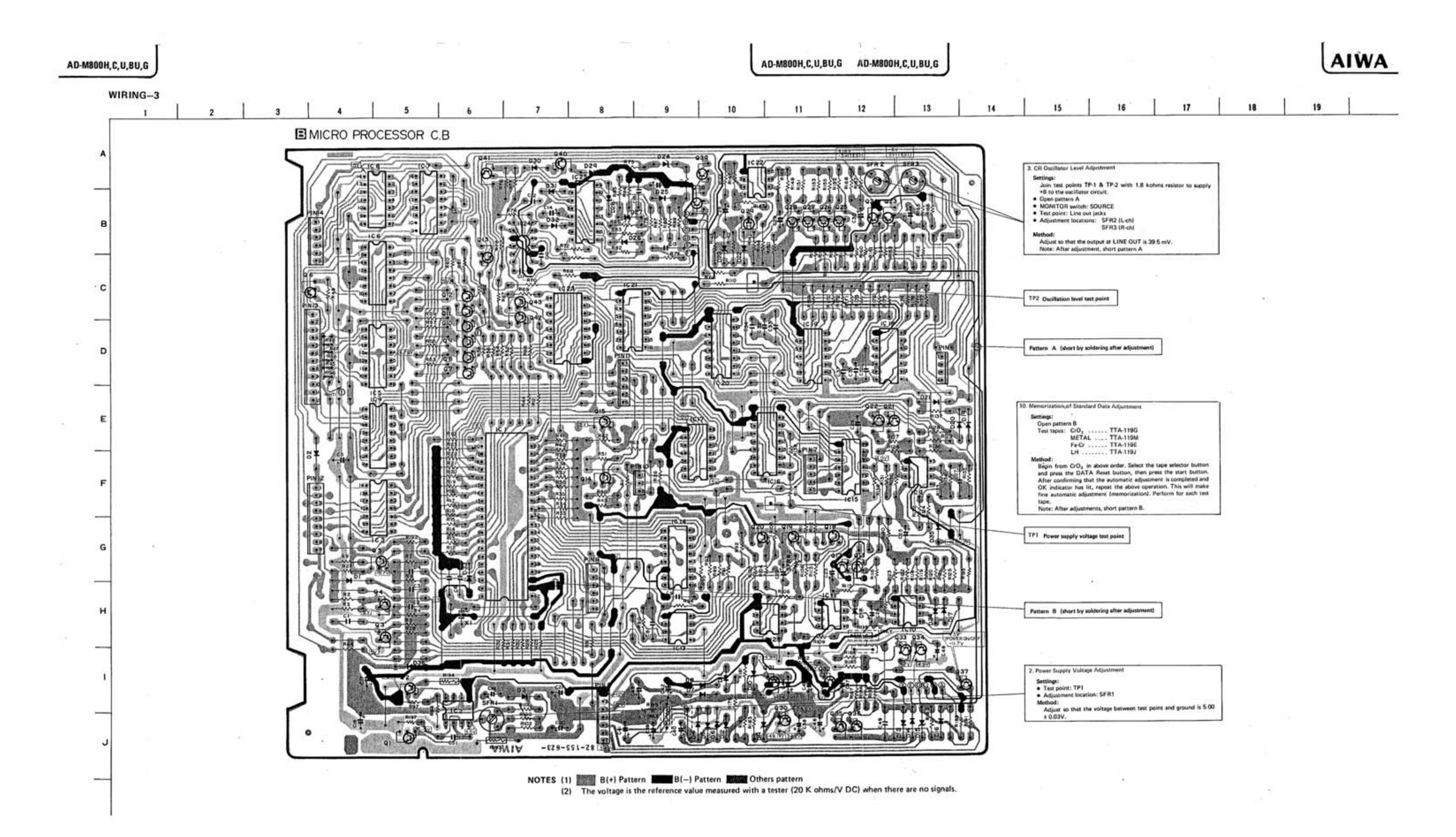
Method:
Add a 1 kHz signal to the LINE IN terminals, and adjust the record volume level control until the LINE OUT output voltage measures 395 mV. In this position, adjust until level meters display 0 VU. Then confirm that the 0 VU peak indicator has completely gone off when the input signal is lowered by 2 dB.

11. Logic Timing Adjustment
Settings:
- Adjustment location: SFR1

Method:
Frequency counter connected with IC1, PIN No. 13 on pattern.

NOTES ■ B(+) Pattern ▨ Component side pattern ▩ Others pattern

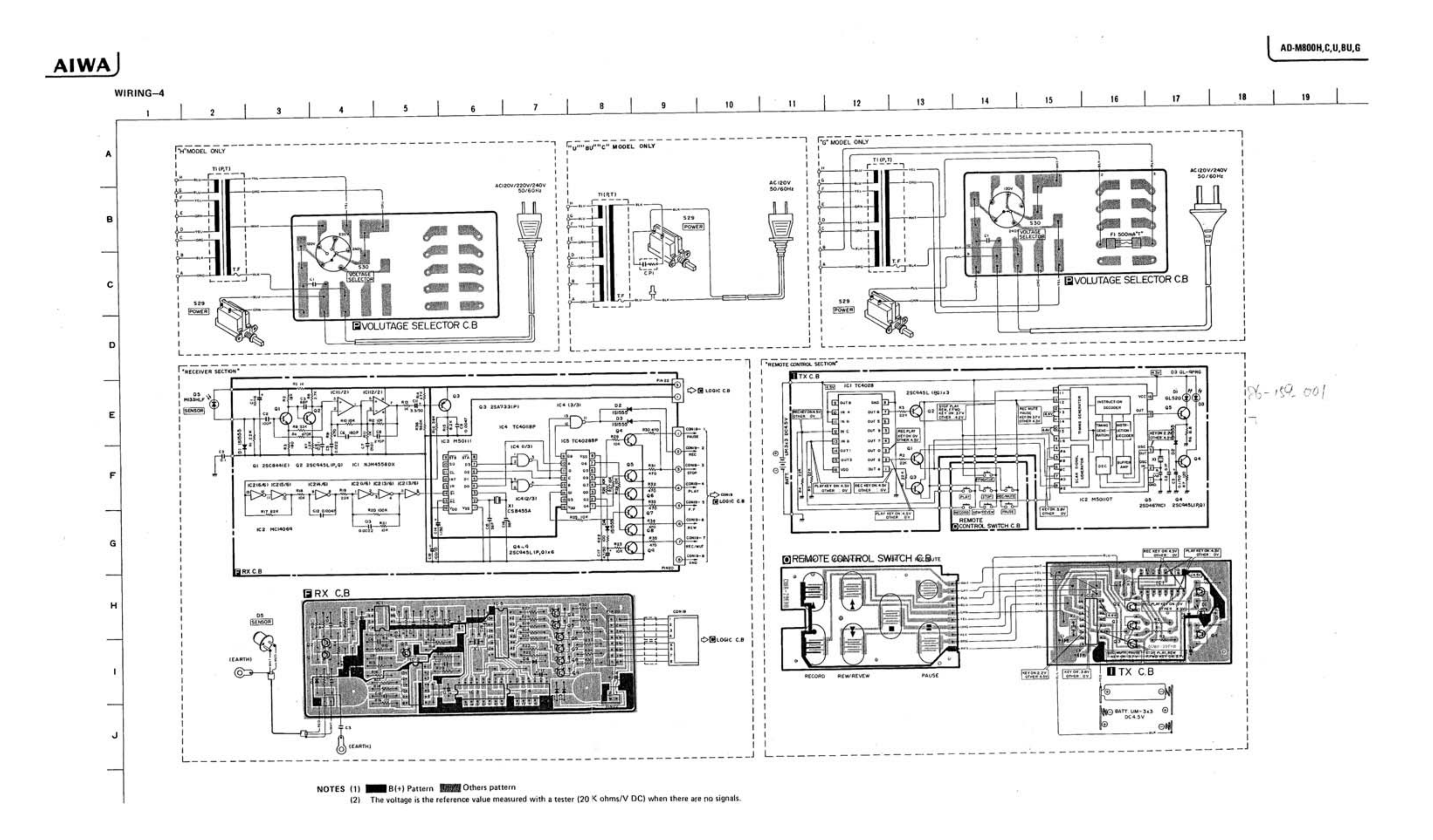
WIRING–3



NOTES (1) B(+) Pattern B(–) Pattern Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

WIRING–4



NOTES (1) B(+) Pattern Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.